

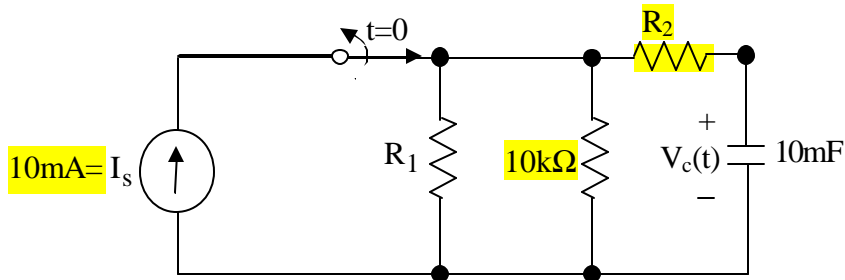
UNIVERSITY OF UTAH  
ELECTRICAL AND COMPUTER ENGINEERING DEPARTMENT

ECE 1270

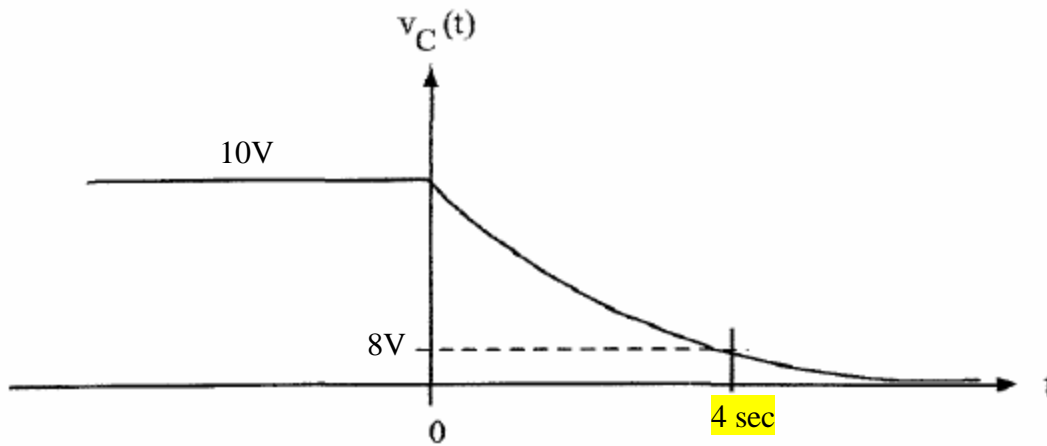
HOMEWORK #5

Spring 2008

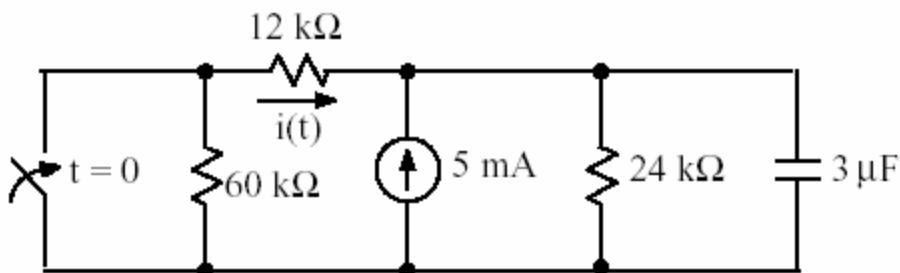
1.



After being closed for a long time, the switch becomes open at  $t=0$ . Find  $R_1$  and  $R_2$  that give the following plot for  $V_c(t)$ :

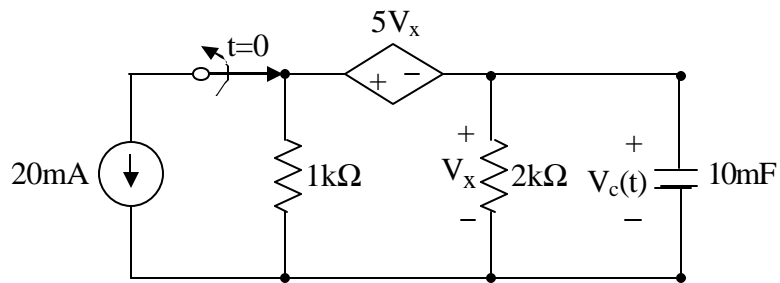


2.



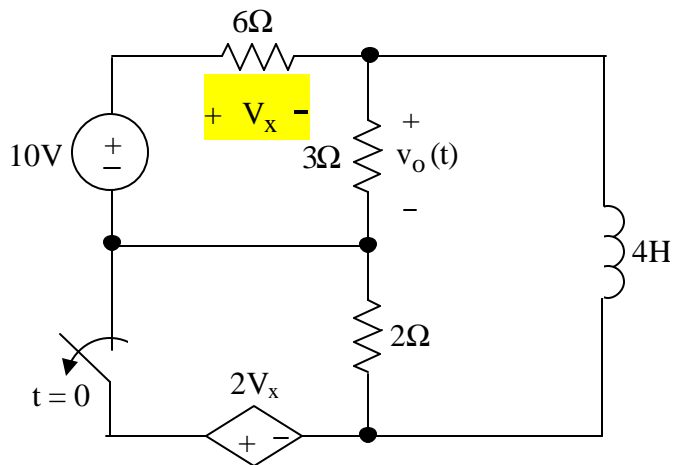
After being open for a long time, the switch becomes closed at  $t=0$ . Find  $i(t)$  for  $t > 0$ .

3.



After the switch has been closed for a long time, it opens at  $t=0$ . Find  $V_c(t)$  for  $t > 0$ .

4.



After the switch has been closed for a long time, it opens at  $t=0$ . Find the output voltage  $v_o(t)$  for  $t > 0$ .